

(19)



JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: **09196171 A**

(43) Date of publication of application: **29.07.97**

(51) Int. Cl.

**F16J 9/00**  
**F02F 5/00**

(21) Application number: **08009162**

(22) Date of filing: **23.01.96**

(71) Applicant: **NIPPON SOKEN INC TOYOTA  
MOTOR CORP**

(72) Inventor: **SAITO KIMITAKA  
KOHAMA TOKIO  
MORINO TETSUYA  
SUZUKI TAKAO  
TSUCHIYA ASAMI  
TAKAI MASANORI**

(54) **PISTON RING**

(57) Abstract:

**PROBLEM TO BE SOLVED:** To improve the strength and the durability without increasing the weight of a piston ring, and to shift the resonance number of revolution of the radial motion of the piston ring outside the practical running range by setting the natural frequency in the radial direction to a higher value.

**SOLUTION:** This thickness  $T$  in the radial direction of a piston ring 1 having a gap part 2 becomes smaller toward the gap part 2, and gradually larger farther away from the gap part 2, and approximately maximum at the opposite side 3 of the gap part 2. Thus, the weight of the piston ring 1 is not increased. The bending stress  $\sigma$  is small at the opposite side to the gap part 2, and becomes larger toward the gap part 2, and becomes uniform as the whole of the bending stress. Because the maximum value of the bending stress is reduced, the strength and the durability of the piston ring can be improved.



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